

WHAT IS CLAIMED IS:

1. A liquid aerosol formulation comprising at least one thermally stable active ingredient selected from the group consisting of buspirone, buprenorphine, triazolam, cyclobenzaprine, zolpidem, pharmaceutically acceptable salts and esters thereof and derivatives thereof.
2. The liquid aerosol formulation of claim 1, further comprising an organic solvent.
3. The liquid aerosol formulation of claim 2, wherein the organic solvent is a short chain (C₁-C₆) alcohol.
4. The aerosol formulation of claim 3, wherein the short chain (C₁-C₆) alcohols are selected from the group consisting of glycerin, ethylene glycol, diethylene glycol, propylene glycol, n-propyl alcohol, isopropyl alcohol, butanol, ethanol, sorbitol, dipropylene glycol, tripropylene glycol, and hexylene glycol.
5. The liquid aerosol formulation of claim 2, further comprising at least one pharmaceutically acceptable excipient.
6. The liquid aerosol formulation of claim 5, wherein the pharmaceutically acceptable excipient is selected from the group consisting of antioxidants, stabilizing agents, flavoring agents, solubilizers, cosolvents, preservatives and combinations thereof.
7. The liquid aerosol formulation of claim 6, wherein the cosolvent is selected from the group consisting of ethanol, water, glycerol and diethyl ether.

8. The liquid aerosol formulation of claim 6, wherein the solubilizer is selected from the group consisting of ethanol, isopropanol, butanol, benzyl alcohol, ethylene glycol, butanediols and isomers thereof, glycerol, pentaerythritol, sorbitol, mannitol, transcitol, dimethyl isosorbide, polyethylene glycol, polypropylene glycol, polyvinylalcohol, hydroxypropyl methylcellulose and other cellulose derivatives, cyclodextrins and cyclodextrin derivatives, and mixtures thereof.

9. The liquid aerosol formulation of claim 1, wherein the formulation contains 0.01 to 5% by weight of the thermally stable active ingredient.

10. The liquid aerosol formulation of claim 2, wherein the thermally stable active ingredient comprises buspirone and the organic solvent is propylene glycol.

11. The liquid aerosol formulation of claim 2, wherein the thermally stable active ingredient comprises buprenorphine and the organic solvent is propylene glycol.

12. The liquid aerosol formulation of claim 2, wherein the thermally stable active ingredient comprises triazolam and the organic solvent is propylene glycol.

13. The liquid aerosol formulation of claim 2, wherein the thermally stable active ingredient comprises cyclobenzaprine and the organic solvent is propylene glycol.

14. The aerosol formulation of claim 2, wherein the thermally stable active ingredient comprises zolpidem and the organic solvent is propylene glycol.

15. A method of generating an aerosol comprising supplying a liquid aerosol formulation to a flow passage, heating the liquid aerosol formulation in the flow passage so as to volatilize a liquid component thereof and form a vapor which exits from an outlet of the flow passage, and contacting the vapor with a gaseous medium so as to form an aerosol, wherein the liquid aerosol formulation includes at least one thermally stable active ingredient selected from the group consisting of buspirone, buprenorphine, triazolam, cyclobenzaprine, zolpidem, pharmaceutically acceptable salts and esters thereof.

16. The method of claim 15, wherein the gaseous medium comprises air and the aerosol comprises particles of the propylene glycol having an MMAD of less than 3 μm .

17. The method of Claim 15, wherein the liquid aerosol formulation further includes at least one thermally stable active ingredient and the aerosol comprises particles of the thermally stable active ingredient having an MMAD of less than 3 μm .

18. The method of Claim 17, wherein the thermally stable active ingredient comprises buspirone and the aerosol comprises buspirone particles having an MMAD of less than 3 μm .

19. The method of claim 17, wherein the thermally stable active ingredient comprises buprenorphine and the aerosol comprises buprenorphine particles having an MMAD of less than 3 μm .

20. The method of claim 17, wherein the thermally stable active ingredient comprises triazolam and the aerosol comprises triazolam particles having an MMAD of less than 3 μm .

21. The method of claim 17, wherein the thermally stable active ingredient comprises cyclobenzaprine and the aerosol comprises cyclobenzaprine particles having an MMAD of less than 3 μm .

22. The method of claim 17, wherein the thermally stable active ingredient comprises zolpidem and the aerosol comprises zolpidem particles having an MMAD of less than 3 μm .

23. The method of Claim 15, wherein the flow passage is a capillary sized flow passage and the aerosol is formed in a mouthpiece of a handheld inhaler.

24. The method of Claim 15, wherein the liquid aerosol formulation contains at least one thermally stable active ingredient and the aerosol includes particles of the thermally stable active ingredient having an MMAD of 0.1 to 2.5 μm .

25. The method of Claim 15, wherein the flow passage is heated by a resistance heater located in a handheld inhaler, the inhaler including a power supply and control electronics which controls supply of electrical power to the heater as a function of a resistance target in a range of 0.5 to 1 ohm.

26. An aerosol generator comprising:

a flow passage adapted to receive a liquid aerosol generating formulation from a liquid supply, the liquid aerosol formulation comprising at least one thermally stable active ingredient selected from the group consisting of buspirone, buprenorphine, triazolam, cyclobenzaprine, zolpidem, pharmaceutically acceptable salts and esters thereof and derivatives thereof;

a heater operable to heat the liquid formulation in at least a portion of the flow passage sufficiently to vaporize the liquid formulation and generate an aerosol containing the active ingredient.

27. The aerosol generator of Claim 26, wherein the aerosol generator comprises a hand-held inhaler having a mouthpiece, the flow passage comprising a capillary sized flow passage having an outlet in fluid communication with an interior of the mouthpiece.

28. The aerosol generator of Claim 26, wherein the heater is a resistance heater comprising a section of a metal capillary tube and the flow passage comprises the interior of the metal capillary tube.

29. The aerosol generator of Claim 26, wherein the aerosol generator comprises a hand-held inhaler having a power supply and control electronics which controls supply of electrical power to the heater as a function of a control parameter selected to achieve boiling of the liquid formulation in the flow passage.

30. The aerosol generator of Claim 26, wherein the liquid supply comprises a reservoir containing the liquid formulation under a pressure of no greater than about atmospheric pressure.